IN THE CLAIMS:

Please amend claim 4 as follows:

4. (Amended) Process according to Claim 1 in which the enzyme is the Klenow fragment of DNA polymerase.

Please amend claim 5 as follows:

5. (Amended) Process according to Claim 1, in which the enzyme is a heat-resistant polymerase of a Thermophilus bacterium or terminal transferase or reverse transcriptase.

Please amend claim 6 as follows:

6. (Amended) Process according to Claim 1 in which the nucleic base is a natural nucleic base chosen from adenine, guanine, cytosine, thymine, uracil, xanthine, hypoxanthine and 2-aminopurine, and derivatives thereof.

Please amend claim / as follows:

7. (Amended) Process according to Claim 1 in which R¹ corresponds to one of the following formulae:

Please amend claim 8 as follows:

8. (Amended) Process according to Claim/1, in which the label is chosen from radioactive products, luminescent products, electroluminescent and fluorescent products, molecules capable of coupling with other molecules, molecules which allow interactions of the antigen-antibody type, and enzymatic labels.

Please amend claim 9 as follows:

9. (Amended) Process according to Claim 1, in which R³ is a fluorophore.

Please amend claim 11 as follows:

11. (Amended) Process according to Claim 1, in which the derivative, the modified morpholino-nucleotide of the chain terminator is compound (I) in monophosphate form.

PLEASE ADD THE FOLLOWING CLAIMS:

18. Process according to Claim 2, in which the enzyme is the Klenow fragment of DNA polymerase.

19. Process according to Claim 3, in which the enzyme is the Klenow fragment of DNA polymerase.

- 20. Process according to Claim 2, in which the enzyme is a heat-resistant polymerase of a Thermophilus bacterium or terminal transferase or reverse transcriptase.
- 21. Process according to Claim 3, in which the enzyme is a heat-resistant polymerase of a Thermophilus bacterium or terminal transferase or reverse transcriptase.
- 22. Process according to Claim 2 in which the nucleic base is a natural nucleic base chosen from adenine, guanine, cytosine, thymine, uracil, xanthine, hypoxanthine and 2-aminopurine, and derivatives thereof.
- 23. Process according to Claim 3 in which the nucleic base is a natural nucleic base chosen from adenine, guanine, cytosine, thymine, uracil, xanthine, hypoxanthine and 2-aminopurine, and derivatives thereof.
- 24. Process according to Claim 2 in which R¹ corresponds to one of the following formulae:

$$H_3C$$
 NH_2
 NH_2

25. Process according to Claim 3 in which R¹ corresponds to one of the following formulae:

$$H_3C$$
 NH_2
 NH_2

- 26. Process according to Claim 2, in which the label is chosen from radioactive products, luminescent products, electroluminescent and fluorescent products, molecules capable of coupling with other molecules, molecules which allow interactions of the antigen-antibody type, and enzymatic labels.
- 27. Process according to Claim 3, in which the label is chosen from radioactive products, luminescent products, electroluminescent and fluorescent products, molecules capable of coupling with other molecules, molecules which allow interactions of the antigen-antibody type, and enzymatic labels.
- 28. Process according to Claim 2, in which R³ is a fluorophore.
- 29. Process according to Claim 3, in which R³ is a fluorophore.
- 30. Process according to Claim 28, in which R³ is chosen from fluorescein derivatives, piotin derivatives and rhodamine derivatives.

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- 31. Process according to Claim 29, in which R³ is chosen from fluorescein derivatives, biotin derivatives and rhodamine derivatives.
- Process according to Claim 2, in which the derivative, the modified morpholinonucleotide or the chain terminator is compound (I) in monophosphate form.
- 33. Process according to Claim 3, in which the derivative, the modified morpholino-nucleotide or the chain terminator is compound (I) in monophosphate form.